Supplying information regarding marine catche to fishermen

5503. SHRIYADLAPATIVENKAT RAO: Will the Minister of OCEAN DEVELOPMENT be pleased to state:

(a) whether information regarding marine catche and matters connected therewith is being supplied to fishermen community from satellite;

(b) the names of Coastal States where such information is being supplied; and

(c) whether Government have assessed the benefits to the fishing community from this new facility, if so, the details in this regard?

THE MINISTER OF OCEAN DEVELOPMENT (DR. MURLI MANOHAR JOSHI): (a) Yes, Sir. Information on potential fishing zones, derived using Satellite based data is supplied to the fishing community twice a week from October to May every year from 1990 onwards.

(b)This information is supplied under a project funded by Department of Ocean Development to the Coastal States of Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, Orissa,Tamil Nadu, West Bengal and the Union Territories of Andaman and Nicobar, Lakshadweep and Pondicherry.

(c) A sample survey conducted during 2001 in three States *viz.* Andhra Pradesh, Gujarat and Kerala as well as the interactive workshops held recently in the States of Andhra Pradesh and Maharashtra have brought out that this information helps the fishing community to improve the catche per unit effort as well as reduction in the search time thereby saving in diesel.

Study on melting of glaciers

5504. SHRI K.B. KRISHNA MURTHY: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Department of Science and Technology has commissioned projects to study the melting of glaciers and of the resultant threat of global warming;

(b) whether the Centre has woken up totfie threats of receding glaciers in the Ganga and Brahmaputra basins and if so, whether the Centre would

consider setting up glaciology study/research centres, on the lines of Glaciology Research Centre, Moscow and Lanzhon Institute of Glaciology and Geocryology, China; and

(c) if so, the details thereof?

THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT): (a) to (c) Yes. The Department of Science and Technology had initiated a multi-disciplinary and multi-institutional nationally coordinated programme on Himalayan Glaciology in the early eighties of the last century so as to create a strong R&D base in the country for studying the different aspects of Himalayan Glaciers including snow melt run-off and mass balance studies. Under this programme several specific research projects, including multi-institutional and multi-disciplinary field observations have been funded.

Geological Survey of India has also been carrying out studies on Himalayan Glaciers, including field surveys.

The studies carried our under these programmes so far have indicated that the glaciers in the Himalayan region are passing through a phase of recession. The recession of glaciers is a natural process sensitive to climatic fluctuation wherein the rise in global average temperature (called global warming) results in melting of the glaciers in extents varying with their locations as well as seasons.

As far as resultant threat of global warming to Himalayan Glaciers is concerned neither enough data nor empirical evidence that links global warming to the melting of the Himalayan Glacier is available.

In order togather long time series data needed to understand vario JS glaciological processes, a multi-disciplinary and multi-institutionally coordinated field-observation based R&D programme in Gangotri region has been recently launched.

A proposal has also been formulated to set up in the country a National Centre for Field Operations and Research on Himalayan Glaciology (NCFOR-HG).The Proposal forms a part of the 10th Plan Programme of Department of Science andTechnolgy.The proposed centre would provide

administrative infrastructure! and technical support to glaciological studies in the Indus, Ganga and Brahmaputra basins. While concerentrising details of this new initiative, the knowledge of the community of glaciologists in the country regarding the activities of Glaciology Research Centre, Moscow and Lanzhon Institute Glaciology and Geo-cryology, Chine have been taken into account.

Operationalising 'SARAS'

5505. SHRIYADLAPATIVENKAT RAO: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) by when the multi-role 'SARAS' Aircraft is likely to be test flown;

(b) when the work on this project was started and what was the target date for taking it to skies;

(c) the reasons for the delay in this regard; and

(d) the other details in this regard?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. MURLI MANOHAR JOSHI): (a) to (d) The project on design fabrication and airworthiness testing of a multi-role Light Transport Aircraft 'SARAS' commenced after the financial sanction was issued on 24th September, 1999. The project envisaged building of two flying prototypes and one structural strength specimen and conducting flight tests leading to certification. The target for first flight of the first prototype was around 18 months from the date of release of funds *i.e.* by end of March, 2001. Owing to difficulties encountered in the procurement of crucial and critical parts from some Western-Nations and unforeseen technological problems, which have now been overcome, the first test flight has been rescheduled to December, 2002.

Research on earthquake

5506. SHRI C. RAMACHANDRAIAH: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Government propose to take up various new research activities on earthquake;

(b) if so, what are the details of the new research initiatives;